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SEPTEMBER, 1882.

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THE PREPARATION of grounds to be seeded to lawn can now be carried forward without delay. Good drainage, deep tillage, thorough enriching, are the main points. Do not use fresh manure, which will almost surely yield a great crop of weeds, but the best old manure quite decomposed and mellow. Pulverize the soil perfectly and take great pains to give the surface uniform grade just as desired when completed. On lawns of considerable size it is not best to attempt one grade throughout, but to follow the general features of the ground in its natural state, of course not allowing little hollows or hillocks anywhere, but conforming with an even spread to the extended depressions and elevations as they exist. It will be well to make the seeding from the tenth to the last of the present month, in order to receive the benefit of the usual rains at that season. Whatever planting of deciduous trees and shrubs is intended this fall should now be decided upon, and selections made. The tree planting can be done in October and November, but it should now be known just what is to be set, and what spots are to be occupied. Those planning for new places will need to exercise all possible judgment and skill, and time spent in giving the subject full attention cannot be better occupied. There are few old places that would not be the better for some re-

adjustment—the removal of some trees that crowd each other or obstruct some desired view, the planting of some to cut off some unsightly object or to enhance the beauty of some group, an addition to the flowering shrubs, or for more climbing vines about the windows and porches, or a few new kinds of Roses to give greater variety to the collection. This, therefore, is a time for making notes of all such proposed improvements and deliberately deciding upon the method of their execution.

So, in the fruit garden, now we are prepared to say what new vines are desirable, where a new plantation of Raspberries shall be made, or where we shall start a lot of young Currant bushes to take the place of the old ones that are beginning to fail. There is no better time than the present to take Currant and Gooseberry cuttings, and, having removed the leaves, to plant them at once in a mellow spot where they can stand to grow. By planting them now, while the ground is warm, they will form a callous over the cut surface, and send out some little roots this fall, and be ready to start with the first favorable weather of Spring. A few leaves can be spread about them, just before winter sets in, to prevent frost from throwing them out of the ground.

The borders of herbaceous plants in the latter part of the month may have attention; some kinds that are growing in



clumps, that have become too large and apparently exhausted the soil about them so that the bloom is below average size, can be divided and replanted in a fresh, rich spot. Perennial Phloxes will produce the finest blooms if divided and transplanted every three or four years at longest, giving them a fresh rich spot.

By the last of the month, nearly all vegetation will have completed its annual growth in the northern part of the country, and the cool nights have checked the flow of sap and matured branch, root, tuber and bulb. Some of our readers may have watched and marked some of the many beautiful wild plants with the intention of removing them to the garden; this month and next will be the proper time to lift them with some of the soil attached and place them in favorable spots. Some care should be taken to prepare soil for their reception as near as possible like that where they were found.

An important part of the flower garden work now is to set the bulbs for the early spring flowers. Hyacinths and Tulips and Crocus and Snowdrops and Narcissus and other kinds claim attention. In order to have fine beds of bloom in spring of these showy plants, it is necessary to give them fresh, rich soil every fall, having taken up the bulbs and dried them off after they were ripe. If allowed to remain in the ground without removal year after year, as they frequently are, they rapidly decrease in size. But the Hyacinth only makes its finest bloom for two or three seasons, its finest, in fact, only once, and then, though the flowers for several years may be pretty, they are not handsome, such as are produced when the bulbs are at their prime. The Dutch Hyacinth raisers select bulbs when they have arrived at their most perfect condition, after several years of careful nursery culture, and then place them on the market as first class bulbs. It is evident that fresh supplies of these bulbs must be procured every year in order to have the finest displays of their bright blooms in spring; and when making these annual purchases it is important that one gets the best bulbs and not those that have already passed their prime and have commenced to deteriorate; and, too, there is great danger that this may occur, since immense quantities of second class bulbs are sent into the country and sold

at a very low price. For the inexperienced eye, and sometimes for the experienced one, it is impossible to detect any difference between prime bulbs and those of a lower grade, and it is only when they come into bloom that their quality can be determined. The only reliable guarantee one can have in the purchase of Hyacinth bulbs is the reputation of the dealer. There is more satisfaction in the bloom of one bulb of first quality than in a dozen of second or third grade.

We like the method of planting bulbs in sand where the soil is at all inclined to be heavy. Make a good sized hole of sufficient depth and place a little sand on the bottom, set the bulb on it, and then cover it with sand up to the surface. The roots now have a chance to push freely in every direction, and the tender leaves and flower spikes can easily push their way to the surface.

A few bulbs of Crocus and Snowdrop planted about on the lawn produce a very pleasing effect early in spring; they bloom before it is necessary to use the lawn mower, and remain from year to year.

In the kitchen garden, preparation should be immediately made for a supply of Spinach in spring. The soil should be manured and dug deep and made mellow and fine. Seed sown in the early part of the month will start so that the plants will have the benefit of the usual rains, enabling them to make a strong growth before winter. By the last of the month, as well as later, Asparagus can be transplanted; the earliest favorable time is best, and when possible it is better to make the planting in fall than to wait to do it in spring, as thereby the plants will start earlier and make a stronger growth the first year. Only a few of many kinds of work that will soon demand attention have been noticed; others will present themselves. Watchfulness and prompt attention will now be necessary to maintain the neatness of the garden; falling fruit, decaying leaves, the waste parts of vegetables gathered for use, and litter from many sources, will naturally be apt to be seen at this season; everything of this kind should be at once removed, for very much of the beauty and enjoyment of a garden depends upon its scrupulous neatness; and the element of beauty is essential to every part of a garden that is worthy of the name.





HIBISCUS SYRIACUS.

### A LATE SUMMER SHRUB.

As most of the shrubs bloom in spring, one that flowers late in summer is desirable on that account alone, even if its other qualities were not just what we would like. But, fortunately, there is one that adorns our gardens that is admirable in almost every respect. This is what is commonly known as the Rose of Sharon, and also as the Althæa, but the botanical name of which is *Hibiscus Syriacus*. Its name indicates its family relationship and its origin. The illustration here presented of a piece of branch bearing foliage and flower, also reveals its kinship with the Mallow and the Hollyhock. This shrub grows from six to eight feet high, is clothed with clean, handsome foliage,

is of erect habit, making a complete, well formed, symmetrical object. It is a handsome lawn shrub planted singly, or is equally useful to mass with others. In this part of the country it commences to bloom about the first of August, and continues for a fortnight or more. Some varieties bloom later than others, and thus, with a number of them, the blooming season lasts for nearly a month. The flowers are of a great variety of colors, although each plant bears those of one shade. The colors are from pure white through different shades of pink or red to various shades of purple. Besides there are many varieties with various colors combined in one flower, that is what may be called pied. Plants are easily raised from seed, and these pro-



duce flowers of every shade. Perhaps in their colors these flowers may be well compared to those of the Balsam, embracing about the same shades and those of individual plants varying as greatly. Quite a number of double flowered varieties are in cultivation, and by many these are most highly prized, though there is a peculiar beauty in the single flowers—that of perfection—flowers with all their parts as nature made them.

Seedling plants are often used for hedges, and they make very pretty ornamental hedges, or screens, where defense is not desired. They bear trimming well, and so can be kept in neat shape, and, as the hedge plants bloom abundantly, the hedge in flowering time is very beautiful. Some of the principal double varieties are the following:—

*Cœrulea plena*, commonly called Double Blue Althæa; it is not really blue, but a dark purple, and forms a strong contrast with a white flower.

*Purpurea flore-pleno*, or Double-flowered Purple Althæa; this is not so dark colored as the one just named, but it is intermediate between that and

*Pœoniflore*, a double, lilac colored flower.

*Rubra pleno* is called Double Red, but it is a purplish red and very pretty.

There is also a variegated leaved variety, with double purplish flowers. This is one of the handsomest variegated leaved shrubs, each leaf being striped with light yellow, or straw color.

The best white variety is single. It is of a pure white and well formed; and a great number of flowers are produced for a long time. There are other varieties that are perpetuated, both single and double. As already noticed, the variations of the markings of the seedlings are endless. This shrub is hardy in this locality, but in more severe climates it is more or less tender. In all of the country south of the great lakes, and in part of Western Canada and Southern Michigan it sustains the winters without injury; in some parts of the West and Northwest it is injured by frost. It is thus seen that it may be cultivated through a wide range of country. It is already a popular plant where known, and we hope that it may be yet more generally planted, and it will soon receive attention when its merits are understood.

## HYACINTHUS CANDICANS.

This plant is yet a new one in this country; it was introduced into England about twelve years ago from South Africa, and has there won the favor of plant growers, as it will, no doubt, here when known. It has been growing in this part of the country in the open ground, without protection, for four years, and its character for hardiness may therefore be considered as established. The Iris-like foliage stands about two feet high, and from the center rises a scape thirty or more inches in height, bearing on pedicles two and a half or three inches long



from eighteen to twenty-five white, drooping, bell-shaped flowers, each an inch and a half in length and a little less than an inch wide. Its season of bloom is from the latter part of July to the middle of August. The plant from which the drawing was made for the present illustration was a bulb that had been transplanted the past spring. When allowed to remain a number of years the clump becomes large, and sends up a correspondingly large number of flower spikes. We regard this as a valuable acquisition to the collection of hardy herbaceous plants, and believe it will be very generally admired.



## THE POTATO ROT.

Fortunately the Potato disease, (*Peronospora infestans*), is not one of the afflictions of this country; if it were, the fight with that and the potato bug would probably be an unequal war. But it has visited us at times, and perhaps, if we ever finish the bug, we may be called upon then, if not sooner, to devote some of our skillful care to that predaceous visitor. In Great Britain it has never wholly disappeared since it was first known there. Last year was a particularly favorable season, the blight doing but little damage compared with its usual ravages. The large potato crop of that country last year was a great boon; and a new trade sprang up with this country, supplying us with potatoes which we were lacking on account of the very general drouth. For years the British agriculturist has been trying with little avail almost numberless methods to prevent or mitigate the attacks of the deadly potato fungus.

It has long been an accepted theory that the spores of this fungus effect an entrance into the Potato plant through the leaves. In fact, this position is not controverted. That this is true there may be undeniable proof; but it has also been held that the spores did not and could not enter the tuber directly through the skin. Mr. J. L. JENSEN of Copenhagen, claims that the spores do enter the tuber through the skin, and, by a great number of careful tests made for the protection of the tubers from the spores brings weighty evidence to the support of his position. The fungus first effects the leaves of the Potato plants, causing brown and black spots on them, and if the attack is severe enough finally destroys them altogether. The spores fall from the leaves to the ground and Mr. JENSEN states that they are carried by the rains down to the tubers, germinate on the skin and penetrate to the interior. In this manner he claims that the injury to the tuber is mostly affected. If the spores from the diseased leaves could be prevented from falling where they would reach the tubers the disease would be controlled to a great extent. This Mr. J. has succeeded in doing, so that his success is indeed very marked. The process is a simple one, and consists in earthing

up the Potatoes, which are planted in drills, so that a sharp ridge is formed over them; and this is done before the disease manifests itself on the leaves, or at its commencement. The following is Mr. J.'s account of the process:

"The usual moulding hitherto practised in all countries is a flat moulding, by which the uttermost tubers are only covered by a layer of one or two inches of earth, but my protective system requires—after a preceding flat moulding—a high and sharp moulding, by which the upper surface of the uppermost tubers is covered with about five inches of earth. To effect this it is necessary that the ridge be so high that the top of it is from ten to twelve inches above the surface of the adjoining furrow, or ditch, whilst the ridge must be very broad at the bottom. My system also requires that the tops of the Potatoes shall be moderately bent to one side, with a view to prevent the rain-water from running down the stems and thus carrying the spores to the tubers. By this contrivance also more spores will fall between than upon the ridges."

In five places in Denmark last year eight experiments were made with the common flat moulding, and eight others with the high or protective moulding, and the result was that there was an average of twenty-three and a half percent of diseased tubers in each of the former, and one and a half average percent of diseased tubers in each of the latter experiments. In eight other similar experiments tried at Antvorskov there was an average of nearly forty-one per cent. of diseased tubers in the flat moulded rows, and only a small fraction of one per cent. in those high-moulded with the tops bent down. This is an exceedingly interesting statement and the difference in the two practices is sufficiently appreciable.

Care is necessary in digging the Potatoes to preserve them from the spores. After the leaves are withered the tops are cut off and carried away out of the field, and this is done a number of days before lifting the tubers.

So many experiments carefully carried out as these were, and the details of which our space does not admit to give in full, all without exception, showing results of the same kind, almost establish with certainty the theory that the spores enter the tubers through the skin.



## THE FRUIT SUPPLY.

In all of the principal markets of the Northern States there has been an under supply of home-grown fruit this season. Last year it was better, but for three or four years it has been evident that the demand was increasing faster than the supply. This remark does not apply specially to the Apple, but includes it.

With a flourishing state of horticulture throughout the country, why is it there should be so steady an advance in the prices of these products? Several reasons may be given for this result.

In the first place the population in cities and large villages has been rapidly increasing, causing a proportionately increased consumption of fruit. Then the principles of diet and hygiene that have for many years been disseminated among the people through the press have been accepted as true, and practically applied, until every one considers as a necessity a certain amount of fruit much greater than was formerly the custom to use. Again, new methods of preserving fruits, such as canning, bottling and drying, have been learned, so that immense quantities are used for this purpose, keeping a supply all through the year, and, what very greatly causes a scarcity, furnishing foreign markets with annually increasing quantities.

Even if this immense increased demand could have been properly appreciated, and of course it could not, a considerable time must elapse before it could be met by fruits like the Apple and the Pear, that are from six to twelve years in coming into bearing. The Cherry, the Plum, and Peach, that give returns quicker, would, if all were favorable, respond more alertly; but these fruits can be raised to advantage only in particular regions, sections, and soils, and probably only a few of those persons who may be favorably situated to raise these crops will avail themselves of the opportunity, since their attention is directed to some other branch of industry. The small fruits, Strawberries, Currants, Gooseberries, and Blackberries, will turn sooner, but for the reason, probably, that they are most available for canning, the proportionate supply of them diminishes apparently more than that of the large fruits.

It is then quite clear, that it is safe for

those having suitable soils in favorable localities to plant fruit trees; with proper attention they will be sure in time to yield handsome returns. Again, we can afford to give our orchards and fruit grounds more attention than has been the custom; they should have the best care with the expectation of receiving ample payment for it in return. More of the small fruits can be cultivated, and a ready market will be found for all the products. In planting fruit for home use we should seek those of the highest quality without greatly regarding other considerations. But for market we must know what kinds meet with readiest sale, and, besides, there are questions in regard to earliness, lateness, carriage, and other points.

## THE NEW GAILLARDIA.

The form of the Gaillardia shown in the colored plate this month has the merit of being different from any ever before seen. The strap-leaved ray flowers have changed into tubular five-lobed corollas nearly half an inch across, and the disk flowers have, at the same time, become enlarged, taking the same form. This result is due to careful selection from those heads in which a tendency to such a change was first noticed; and by sowing seeds from them, and again selecting the most altered forms for successive generations, a strain of seed has been secured that affords quite a large proportion of the heads composed of flowers with enlarged tubular or trumpet shaped corollas. It is not to be supposed that all the heads of flowers present so complete a change as those here represented; on the contrary, a bed of the plants would present every grade of flower heads from those but slightly changed from the natural form to those with all enlarged corollas; and, in this respect, it may be compared to a bed of so-called double Zinnias. The combination of the colors, yellow and crimson, give the effect of orange, which is something rather rare, making a mass of these plants in full bloom quite striking. As cut flowers for vases with other flowers and foliage, they produce a very fine effect. As a novelty the plant is quite an interesting one. The public are indebted for this production to the painstaking of Mr. CHR. LORENZ of Erfurt, Prussia, whose name it bears.





### COUNTRY LAWNS.

Country lawns, though a great deal talked about, are so seldom seen that, like Mrs. Gamp's worthy friend, Mrs. Harris, we are sometimes led to think they are merely imaginary. To be sure, every country house, with few exceptions, and country house is used as a general term for farm house and not for suburban residence, has a grass plat of some small part of an acre which is dignified with the name of lawn, regardless of "the fitness of things," as much as the the man, who, proud in the possession of an Osage Orange tree, boasted a hedge. It is a fact to be deplored that while we have so many land owners, persons with farms of from one to three hundred acres, there is seldom but the merest fraction of land devoted to ornament. This neglect is worse in the West than at the East, owing presumably to the fact that western farms are so much larger. If it were understood that a little ornamental gardening is a positive necessity to the embellishment and setting of our homes, serving the same purpose as the frames around the pictures on the walls, we should not so often bemoan the barrenness of the grounds surrounding our country dwellings. Fifty or a hundred years ago there was sufficient excuse for this neglect. Life then meant chiefly a hand to hand conflict for existence. There was then but little time aside from the daily struggle for bread, but now that the lands have been cleared and comfortable houses erected, it is time we were having more attention paid to our lawns.

If possible, no lawn should be less than an acre; more ground may, of course, be added in proportion to the time and resources of the owner. We are now writing for those who have limited means, busy people who have but little leisure

time each day, and yet, if it should be judiciously employed in horticulture, would abundantly repay by adding new beauty to their homes. Now the possibilities of horticulture on even an acre of ground are more than any one without experience would think, and there is abundant opportunity for the amateur if he would avail himself of the resources at hand. In the first place, we have a number of trees, both deciduous and evergreen, indigenous to our country, of which any land might well be proud. The stately Beeches, sturdy Oaks, graceful Elms, broad Maples, and a score of others none the less beautiful, might be so placed in juxtaposition with our lofty Pines, feathery Hemlocks and dark green Cedars, as to form a striking contrast the effect of which would be a never ending source of delight. True taste requires variety, and with a little knowledge of the various and different shades of color possessed by the many kinds of trees used in planting, the lawn may be made to appear like a large picture, having all the color and perfection of art, with more of the natural and less of the artificial. Some one has defined art as "nature better understood," so that if you desire an artistic effect in horticulture, study nature.

If fruit trees are desired on the lawn, they should be placed at one side, or as much out of sight as possible, for very few of them are shapely, well formed trees. While a peach tree is a lovely sight for a week or more in the spring when laden with its delicate pale pink blossoms, yet usually it is a crooked, misshapen, deformed looking tree. Apple trees, though usually well formed, yet from the continual dropping of knotty and half ripened fruit, generally present an untidy appearance. We might cite



reasons for excluding the various other varieties of fruit trees from the lawn, but they will be apparent without any thing further to the careful observer.

Some amateurs, and we think wisely, have adopted the English plan of planting flowers, such as annuals, bedding plants, Geraniums, Coleus, &c., in a plat back of the house, or in a place by themselves, a garden, in fact, where Flora reigns supreme. Here is bed after bed in close proximity, merely narrow walks between, of flowers of every hue blooming in wild profusion, and the happy owner may pluck to his heart's content great velvet petaled blooms without any twang of regret that he is spoiling the fine effect of his "front yard." Now, this idea may seem to some like rank heterodoxy, and yet, we admit that high colored exotics add a beauty all their own to the lawn, but, for all that, their stay, on account of delicacy of constitutions, must of necessity be brief. With safety they cannot be bedded out before June, then they seldom cover the ground before August; in October they succumb to the frost, and in their stead, for the following eight months, there remains nothing but ugly brown patches of bare earth. Two months of beauty is too high a price to pay for so many months of ugliness. Where a regular gardener is employed or much time spent, the beds might be kept from presenting a barren appearance for so long a time, but even then there would be months when they were a blemish on the landscape. While giving all due admiration to the rare exotics of many hues and the various annuals, the one being for the greater part of the year in the house or conservatory, and the other blooming in a garden all their own where their more aristocratic sisters may rusticate for a few brief summer days, yet their exclusion from the lawn does not necessitate a wilderness of green with no brilliant blossoms flashing here and there like bright winged butterflies at rest. We have an endless variety of flowering shrubs, and many with variegated foliage as well, and Roses, which if we chose might cultivate.

The Rose beds could with happy effect be bordered with some of those self-same bright Coleuses, or dwarf Geraniums you disliked so much to put in the "back yard." A few well grown Palms set out on the lawn in boxes or vases add much

to its tropical appearance. Where the Palms are impracticable, the old fashioned hardy *Yucca filamentosa* serves as one of the most admirable substitutes.

While it is trite but true that there is "no accounting for tastes," some may even not possess any for which to render an account, but to which ever class you may belong, if you establish a lawn your taste will improve with experience, and in years to come an ample reward of landscape beauty will be yours.—R. E. M., *Felicity, Ohio*.

#### CINCHONA AND ITS ALLIES.

Perhaps, with the exception of the Papaveraceæ, no natural order of plants furnishes such a varied and important display of medicinal and economical products as the Rubiaceæ.

Botanically speaking, the Rubiaceæ is a large natural order of gamopetalous plants, herbs, shrubs and trees, found in all parts of the world, but largely tropical. For convenience this large family is naturally divided into three sub-orders—Stellateæ, Cinchoneæ and Loganiaceæ, which latter is now considered a separate order.

To the first division belongs the *Rubia tinctorum*, or Madder, which is closely allied to our common *Galium*, or Bedstraw.

The second division, or Cinchoneæ, is represented in the United States by our common *Cephalanthus*, or Button-bush, *Mitchella repens*, and several other small plants. Closely to these comparatively unimportant species comes the true type of the sub-order, the tropical South American genus *Cinchona*, the many species of which furnish the Peruvian Bark of commerce. Next to this magnificent genus of trees comes a modest little Brazilian shrub, the *Cephaelis Ipecacuanha*, the root of which furnishes the medicinal Ipecac. In the Eastern Continent we find this division represented upon the hills of Abyssinia and Arabia by the *Coffæa Arabica*, the seed of which has for centuries delighted and refreshed the human race.

The third and last division, or, as it is now classed, the order Loganiaceæ, presents a strange grouping together of delicious fruits, beautiful flowers and deadly poisons. Its principal representatives in this country are the *Spigelia Marylandica*, and the *Gelsemium sempervirens* of



the Southern States. Nearly related to these comes a group of tropical plants noted as producing the most poisonous substances known to modern medical science. It is the genus *Strychnos*, represented in India by *S. Nux-vomica*, which yields the alkaloids strychnia, brucia and ingasuria. In the Philippine Islands we find *S. Ignatia*, which affords the *St. Ignatius Bean*, and in Java there grows a beautiful climbing vine, *S. Tieute*, which yields the subtle tiente poison, while, as the last and most deadly of the list, we find in South America the *S. toxifera*, the probable source of curare, or woorari poison.—CHAS. ATWOOD.

#### NIGHT FLOWERING CEREUS.

*Cereus grandiflorus* is a native of the Island of Jamaica, whence it was introduced in the year 1700. It is a creeping species with succulent stems, which are covered with spines, and perfectly destitute of leaves. The office of the leaves is supplied by the thick, five angled stem. It is a species of vigorous and rapid growth, and one that can be trained so as to cover a considerable space in the greenhouse or conservatory, where it will attain a height of about twenty-five feet if properly trained and liberally treated.

Excepting in the greenhouse or conservatory the cultivation of this species is seldom attempted, for out of flower it is anything but an attractive plant. Notwithstanding this fact, there is no plant more deserving of cultivation, the more especially as it can be so trained against the wall, rafters, or sides of the conservatory or greenhouse that it will occupy but little space.

When the flowers first make their appearance they appear as little, white, cottony buds, about as large as peas, on the angular ribs of the plant, the scales of the buds being entirely covered with long, soft, silky hairs, having the appearance of being closely matted together. The buds remain small for a considerable time, but very slowly and gradually enlarge until within a few days of their development, when they increase rapidly in size. The flowers commence to expand about six o'clock in the evening, and by eight o'clock they are fully expanded; toward morning they commence to droop, and by sunrise there is nothing left to convey any idea of the superb beauty of

this magnificent flower. Notwithstanding the short duration of the flower there is none that can equal it in beauty or make a more magnificent appearance. When fully expanded it is over a foot in diameter; in color the outside is of a dark brown, the inside having a yellowish tint. The petals are pure white, and immense numbers of thread-like stamens surround the style, and the air is laden for a considerable distance with delicious vanilla-like fragrance. In view of all these, one can well unite with the poet in saying,

"None but a fool could gaze on thee,  
And say, there is no God."

A plant with half a dozen or more of these superb flowers fully expanded is indeed a sight never to be forgotten, and all who have a love for the beautiful, and the necessary facilities for the cultivation of this plant should by all means add it to their collection.

It is a plant of comparatively easy cultivation, requiring a warm greenhouse temperature, (50°,) and little or no water during its season of rest, but it should be given a liberal supply during its season of growth. Good drainage is indispensable, and a compost consisting of one part well rotted manure, two-thirds well rotted sods and a liberal addition of lime rubbish and bits of charcoal. Be careful not to over pot it, the pots should be as small as the size of the plants will admit. The best way to bring the plants into flower is to expose them to the open air all summer; this treatment makes the shoots plump, and thus throws them into bloom.

Propagation is effected by cuttings which after being taken off should be left to dry for ten or twelve days, or until they are shriveled, when they can be potted and treated as advised for old plants.—CHAS. E. PARNELL, *Queens, L. I.*

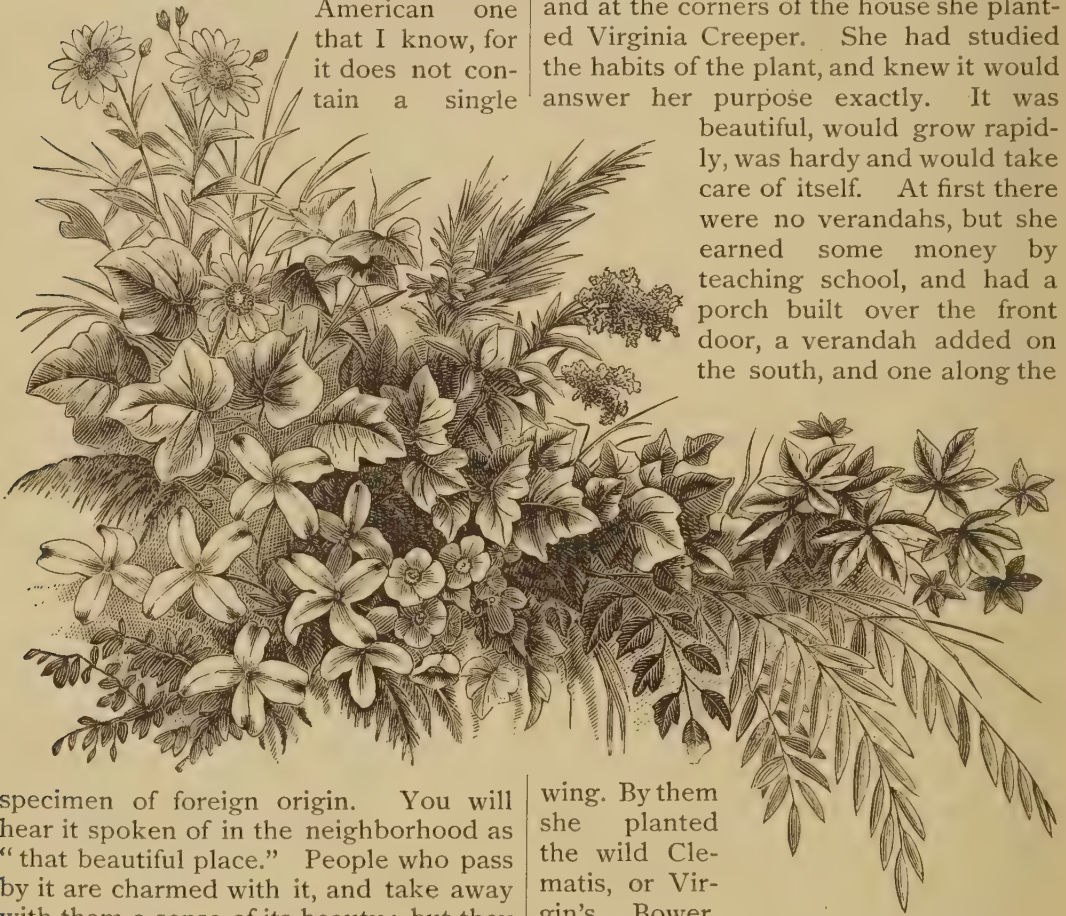
GRAPES AND MILDEW.—My Grapes, this year, are entirely free from mildew, but some of my neighbors' vines are affected with it. Why should it be so? I pruned my vines very carefully with a view to the amount of fruit they could safely carry, so that they should not set more than they were able to perfect. The result is the vines are unusually vigorous, the bunches are almost perfect, the berries quite large, and they swelled so rapidly as to surprise my neighbors. Is not over-cropping one cause of mildew?—H.



### A NATIVE GARDEN.

I want to tell the readers of the MONTHLY about a garden made up wholly of native shrubs, and have it understood that we have the means of beauty at our own door, and that to have a beautiful garden does not necessitate the expenditure of large sums of money, as many suppose.

This garden is the most distinctively American one that I know, for it does not contain a single



specimen of foreign origin. You will hear it spoken of in the neighborhood as "that beautiful place." People who pass by it are charmed with it, and take away with them a sense of its beauty; but they would never notice anything in particular about one of our conventional gardens, because they repeat each other so closely there is no individuality about them. One is a type of all the others.

The presiding genius of this garden is a young woman. Her father came here to make a home five or six years ago. She urged him to leave some of the trees about the site chosen for a house, and he did so. Some shrubs were also left at one side, about which a wild grape had begun to clamber, and an old rock in one corner of the yard. She had to work hard to accomplish her plan, for the idea of leaving bushes and rocks "in the door yard" was an innovation on the old way

of doing things; but on her promising to attend to all that was to be done in fitting up the yard she was allowed to have her way.

The house was built. It was not an ornamental structure. It had a prim, bare look about it. But she knew how to cover up its lack of beauty by the beauty of nature. She went to the woods and got vines. About the doors and windows and at the corners of the house she planted Virginia Creeper. She had studied the habits of the plant, and knew it would answer her purpose exactly. It was beautiful, would grow rapidly, was hardy and would take care of itself. At first there were no verandahs, but she earned some money by teaching school, and had a porch built over the front door, a verandah added on the south, and one along the

wing. By them she planted the wild Clematis, or Virgin's Bower, of our Northern woods, and the Bittersweet, and trained them up the posts and along the cornice of the verandah. The Virginia Creeper, being a more ambitious grower, she left to cover the sides of the house, and clamber to the eaves and roof.

Then she turned her attention to the yard. The clumps of bushes I have spoken of was really a thicket of young Maples. Some of these she cut down, and those left she trimmed into more symmetrical shape, taking care not to injure the grape vine which had established itself there. She wound its branches in and out among the trees until she had an arbor that was perfectly charming, because it was so unlike all other arbors.



The great charm about it was its naturalness, its simplicity. Under it, she constructed rustic seats, and here, in the heat of the day the whole household came and found a cool and pleasant place to rest in.

In one corner she planted Golden-rod and wild Asters. Here she met with opposition. Her father saw in them only the "weeds" he had waged war against from boyhood. "They grow in every pasture," said he. "But they are none the less beautiful because of that," she answered. "You have always seen them when they had to fight for existence. Wait, and see what they will do with a little encouragement."

About the rock, which was shaded by one of the largest trees in the yard, she planted Ferns. A Virginia Creeper soon clambered over the gray surface and almost hid it in luxuriant foliage. Here and there under the trees she set shrubs that she found in the woods—wild Roses, Elders, Dogwood, Sumach. Whenever she came across anything that pleased her, she removed it to her garden. She followed no elaborate plan in its arrangement. She attempted no improvement on nature's landscape gardening. She saw how things grew when Nature took them in hand, and she was wise enough to follow that artist's examples as closely as possible.

Well, the result!

I wish I could tell you so that you could see its beauty as vividly as I saw it last fall. I went there to stay two days, and I remained two weeks, and never wanted to go away. The place had the atmosphere of the woods and the pasture lands about it. The trees stood tall and majestic, as forest trees always are, unlike the same kinds of trees when we plant them on the lawn. There was a wild strength and grace about them which belongs only to the tree that has grown up in the forest. The Virginia Creeper had climbed to the eaves and over them to the chimneys. The cornice was hidden by it. Harsh outlines were covered by its grace, and every corner was beautiful with foliage. About the verandahs the Bittersweet had twined its little branches, and through its green leaves ripening clusters of scarlet fruit glowed like flowers. The Clematis had blossomed profusely, and its feathery seeds were interwoven with the leaves and berries of the Bittersweet.

The Golden-rod and Asters were out in brave array, and their corner of the yard was brilliant with color. The Sumachs were gay as if fragments of a rainbow had fallen there. The Dogwood was laden with fruit, and the purple clusters of wild grapes were fair to see, if not to taste. The place was like no other I have ever seen. It had a quiet about it like that which nature keeps the secret of. It seemed as if the trees had kept it there, and nature, pleased by the loyalty my friend had shown her, had consented to make her dwelling there.

"I wish you could have seen it in early summer," said my friend. "The Dogwood was a sheet of bloom, and the Elders tried in vain to eclipse them. Then the Clematis had everything its own way for awhile. My Grape vine was as fragrant as Mignonette. You know how I fought for it and the Maples. There isn't one of the family that would part with them for any money now. We almost live there in the summer. And my wild Roses! They were not as showy as garden Roses, but they were so lovely, and sweet, sweet, sweet!"

I passed the place in October. It was like fairy land in its splendor of color. The Virginia Creeper was a mass of crimson and brown, in strong contrast with the yellow Maples and russet Oaks. The purple clusters of the grapes showed through the branches of the golden Maples, and the effect was like that of a beautiful autumn picture in which the artist has been entirely true to nature. It lingered in the mind in the same way as do the recollections of such a picture.

All this was done by a woman who had eyes to see the beautiful at her own door. It had cost her only time and labor. It has been a labor of love, and now she is yearly repaid a thousand fold.

I have tried to give you an idea of this garden because I am an ardent lover of American shrubs and vines, and would like to get others interested in them. I want them to open their eyes and see that it is not necessary to go abroad for beautiful things. If they could see this garden they would be convinced, for it illustrates practically what I mean. It shows what can be done with the flowers of our woods and pastures. It is a sermon on the use of things we overlook as worthless, because we will not see how



much of beauty has been given to us, if we will only put out our hands and take it.—EBEN E. REXFORD, *Shiocton, Wis.*

#### WOMEN FLORISTS.

Every other woman one meets is anxious to make money, and yet women contrive to avoid the most congenial, profitable and healthful occupation of all, raising fruits and flowers. Young women, destitute of glove and dress money, report dull sermons for the papers at fifty cents a column, run round in snow and wet to the fashion openings of supercilious milliners, or go shabby-genteel to rich women's parties, who treat them with the politeness of waiting maids, earning less than the average school teacher, and being of less consideration in the world than the compositor who sets their type.

Or, the end of their ambition is to teach in ill-ventilated buildings, where they grow old and sharp with the worry of children and the exactions of school boards and partial parents, when they might be independent and blissful as Eve, living, like her, in a garden, and gaining strength, stamina and freshness from the elixir of sun and sweet air and roses as the years go by. The ideal life for a woman lies between house and garden, and whether housekeeper, writer, or artist, she needs daily hours of florist's work to take her into the open air, and give her the refreshment of the bloom and scent of plants. There is so little about florist's work that is hard on the strength, and so much that is cheery and inspiring that it would be, if known, the favorite pursuit of women. The reason why so few attempt it, is because, like most desirable work, it needs training and insight, and the girl who feels perfectly competent to write for a newspaper, or take charge of fifty children, would not know how to start a pot plant or rid a rose bush of red spiders.

If you have a delicate girl of fourteen whose health you wish to establish, buy her a dozen plants, and two or three books, give her a bay window in the sunshine and a garden border to begin with, and let her learn, step by step, how to raise plants. Let her go afternoons twice a week to the nearest florist's greenhouse and learn the processes by actually helping to pot cuttings, mix earth and remove plants. You had better pay for florist's lessons than for doctor's bills or German

classes, if you want to do her good. By the time she is old enough to take a primary school at \$600 a year, she will know how to manage a greenhouse and garden, which will give her in a few years more than any teacher ever makes.

There is now a lady florist in Quincy, Mass., who, to indulge her own love of flowers and improve her health, built a small greenhouse and took the care of it and a garden beside. People wanted to buy flowers, and the business grew upon her hands till now she has four forcing houses, a fern house and large garden crowded with flowers, herbs and splendid fruit. She has three young women in training, who find it easy to do all the work of the place, the only other help being a boy in the busy season. The sight of Mrs. PACKARD's ornamental work in dwarf Cactus and leaf plants, her thicket of Roses and screens of Ivy, her Pears and Lawton Blackberries, and the Fern house, draperied with clouds of greenery which is the pride of her heart, would lead any unoccupied woman to resolve to devote herself to floriculture, or, if they didn't, a glimpse of the elegant toilet and charming indulgences with which the fortunate florist is able to surround herself, would. I doubt if a woman can make a steady \$3000 a year more surely or agreeably than by cultivating an acre of land, one-third under glass.

To come to the other extreme from this highly successful example, the first florist I ever knew was a sewing woman, who raised a few choice Roses in her windows and sold them to add to the pittance she earned by making shirts, and my first Monthly Rose was bought from her. That gardening pays every where was shown by the success of a German woman, out on a newly settled prairie in Wisconsin, twenty years ago. Her husband, a nursery gardener, was struck with paralysis, when his stout hearted wife took up the business, and made it support them well for years. In a neighborhood, twenty miles from market and where houses were a mile apart, she raised all the seeds and plants in demand, all the Onion and Cabbage seed, Cabbage and Tomato plants, Pie Plant and Horse Radish roots, Currant and Blackberry sets and Strawberries. People stocking new gardens for fifteen miles around went to CHRISTINA JOHNSON for these



things, and while they were about it were often tempted to add a Flowering Currant and Prairie Rose, a Pæony root and Snowball for the door yard. When the taste for improving homes is on the increase, flowers and shrubs are among the must-haves of a family, and there is a good business in supplying them.

Every established florist knows of modest ventures made by women which advanced to gratifying success. I can recall more than one in a small way, like the two old maid sisters, who kept a greenhouse built from the sitting room of the old homestead, which, added to their slender income for years, and the quarter acre of Amaranths, which brought in most of an old woman's spending money, to keep her in the long winter. The "fern farm," in Connecticut, which supplies the trade in the region is largely known to enthusiastic cultivators, and there were the two friends, one a school teacher, the other a needle-woman, who went to Michigan and made themselves a home and an independence, with a capital of \$300 off a fruit farm, worked, all save the plowing and harrowing, by their own hands. That \$300 capital will be as hard to raise as a mill-stone tied around a woman's neck, so train your daughters to earn and save it, little by little, from the sale of her first Roses and Carnations, her Climbing Ferns and Lemon plants, before she is in pinching need of a livelihood and a home. Better sell the Lilies and Carnations raised from her own garden than the roses from her cheeks, in wasting toil or loveless marriage.

The constant care, the minute supervision, the gentle, ceaseless efforts called for by a greenhouse or garden are a good training for character, and the florist who reads French and Belgian journals, corresponds with foreign cultivators, and studies earth and air for the processes of horticulture, ranks any profession alive. By the memories of JOHN BARTRAM EVELYN, of the "Sylva," Sir THOMAS MORE, who loved his garden more dearly than the Royal Palace, and by such names in our own time as DOWNING and ARNOLD and Dr. JOHN A. WARDER, and that gentle, alert and studious President of the Pomological Society, MARSHALL P. WILDER, florists and horticulturists should learn to revere their calling as the first and finest of all in the world.—SUSAN POWER.

### THE UNFRUITFUL TREE.

There stood in a beautiful garden  
A tall and stately tree,  
Crowned with its shining leafage  
It was wondrous fair to see;  
But the tree was always fruitless,  
Never a blossom grew  
On its long and fruitless branches,  
The whole bright season through.

The lord of the garden saw it,  
And he said, when the leaves were sere,  
"Cut down this tree, so worthless,  
And plant another here.  
My garden is not for beauty  
Alone, but for fruit, as well,  
And no barren tree must cumber  
The place in which I dwell."

The gardener heard in sorrow,  
For he loved the barren tree,  
As we love some things about us  
That are only fair to see.  
"Leave it one season longer,  
Only one more, I pray,"  
He pleaded, but the master  
Was firm, and answered, "Nay."

Then the gardener dug about it,  
And cut its roots apart,  
And the fear of the fate before it  
Struck home to the poor tree's heart.  
Faithful and true to his master,  
Yet loving the tree so well,  
The gardener toiled in sorrow  
Till the stormy evening fell.

"To-morrow," he said, "I will finish  
The task that I have begun ;"  
But the morrow was wild with tempest,  
And the work remained undone.  
And through all the long, bleak winter  
There stood the desolate tree,  
With the cold, white snow about it,  
A sorrowful thing to see.

At last, the sweet spring weather,  
Made glad the hearts of men,  
And the trees in the lord's fair garden  
Put forth their leaves again.  
"I will finish my task to-morrow,"  
The busy gardener said,  
And thought, with a thrill of sorrow,  
That the beautiful tree was dead.

The lord came into his garden  
At an early hour next day,  
And then to the task unfinished  
The gardener led the way;  
And lo! all white with blossoms,  
Fairer than ever to see,  
In its promise of coming fruitage,  
There stood the beautiful tree.

"It is well," said the lord of the garden,  
And he and the gardener knew  
That out of its loss and trial  
Its promise of fruitfulness grew.  
It is so with some lives that cumber,  
For a time, the Lord's domain;  
Out of trial and mighty sorrow  
There cometh a countless gain,  
And fruit for the Master's harvest  
Is borne of loss and pain.

—E. E. R.





#### DRACÆNAS IN NEW ZEALAND.

A person who is at present a resident of New Zealand writes to *The Garden* an account of a trip taken in the wild parts of that country for the purpose of collecting seeds of the native plants and learning something about them. We quote the following giving us a conception of the appearance in its native land of *Dracæna australis*, a species now well known in cultivation. This plant he says the settlers name Cabbage Palm.

"This dotted over the sides of hills and gullies in all sizes, from the single stemmed small plant which might be grown in a pot to the huge candelabra-shaped tree 30 feet high, imparts a singular un-English tone to the landscape. Old trees send up huge trusses of white flowers, the panicles being often 3 and 4 feet long and much branched. I observed some veterans crowned with long panicles of fruit, but, owing to the branchless character of the stems, it is somewhat difficult to reach fruit and flower. This is a very favorite plant with colonists; they like to have them dotted over their grounds as a relief to conifers and deciduous trees. Grown in pots in a young state, this *Dracæna* makes a grand appearance amongst Ferns and other fine foliaged plants, and as it is extremely hardy, growing quite up into the alpine districts, and as easy to strike as a piece of potato, there is no difficulty in obtaining a stock of it if only one strong plant be secured. Here, where large trees of it may be found in any gully or piece of waste bush, one has only to hack a tree up into pieces one foot long, and each piece will send up one, two or three strong crowns. I should hesitate, however, to plant it out in the open ground among Ferns, for I find that its long fleshy white roots quite dry up and exhaust a considerable circle of the

ground around the tree; but planted amongst plants that can hold their own against it, I do not know of any plant which contributes more to give variety to the shrubbery or pleasure ground."

#### THE VICTORIA WATER LILY.

The *Garden* notices that the great Water-Lily, *Victoria regia*, is now in flower both at Kent and at Regent's Park, London: "Both plants are fairly developed this year, having enormous leaves and huge blossoms, which appear in quick succession. Those who at one time thought the Victoria deteriorating on account of the plants being propagated continuously from home-saved seeds would probably modify their opinion on seeing these fine plants." It is a long time since we have heard of this water-lily being cultivated in this country. When shall it be seen again here?

NATIONAL ROSE SHOW.—At the exhibition in London of the Royal Horticultural Society, July 4th, the silver medal for the best Hybrid Perpetual Rose in the show was awarded for Madame Gabriel Luizet; Souvenir d'Elise took a similar medal as the best Tea; and Triomphe de Rennes, another, as the best Noisette.

HONORS TO A HORTICULTURIST.—It is a pleasure to note that on July last the decorations of the "Legion of Honor" were conferred on HENRI VILMORIN, seedman, horticulturist and writer on horticultural and agricultural subjects.

THE people of Kingston, Jamaica, are fond of flowers. Many are Rose fanciers. Teas and Noisettes succeed admirably, flowering continually; but they want the Hybrid Perpetuals, and these do not bloom well with whatever care they receive.



## A GREAT PLANT.

Those of our readers who are aware of the very diverse forms assumed by the different species of that very

differing as widely from these as they from one another, and which is here represented. It is known as *Puya gigas*. The following account is by EDOUARD



interesting natural family of plants, the Bromeliaceæ, to which belong the Pine Apple, and the so-called gray moss that grows on the trees at the South, will not be surprised to learn of still another form

ANDRE, the well known French horticulturist, botanist and writer.

"On May 2, 1876, I left Pasto to cross the eastern Cordilleras and explore the Lake Cocha, a subalpine lake to the south of



Columbia, whence rises the Rio Guamues, one of the principal tributaries of the Amazon. I will now therefore only give an account of one of the plant discoveries then made. We were proceeding on our way in file through water up to our knees, in the midst of rushes, which form a vast marshy circle round the Cocha, and between the small hillocks, on which *Casias*, *Osmunda cinnamomea*, and pretty rosy *Cardamines* grow, when I suddenly perceived rising up before me a kind of mast like a telegraph post set up in this singular landscape. Having approached it, I found it to be a gigantic *Bromeliad*, the strangest that any botanist had ever seen; on small hillocks, just out of the swampy ground, rise up, or rather spread out, rosettes of sharp-pointed hard leaves, of a green color and white and furry underneath, provided with formidable black spurs diversely hooked. From the centre of the leaves sprung the stem, varying from 20 ft. to 30 ft. in height; the color a grayish black, covered with wool, which was most abundant at the top. This wool protects the flowers from the inclemency of a zone, the altitude of which is more than 3000 metres (10,000 ft.) above sea level. The disposition of the flowers on the stalk gave it the appearance of an enormous club. I did not see the flowers, but I was assured by the natives they were very beautiful, being at first white, and then passing to rose and violet before fading away. I had already met in the Cordilleras many species of *Puya*, from the occurrence of *P. lanuginosa* (Schult.), with flowers of blue or verdigris, to *P. chilensis*, with yellow outside petals, but nothing of the kind had been so striking to my eye either for size, habit, or manner of flowering as this *Puya*.

"Several months after this, when at Lima, M. RAIMONDI, the Peruvian traveller, spoke to me of another giant *Bromeliad* which he had discovered in the department of Ancachs. This plant, which grew in the Puebrada de Cashapampa, and on the road from Huinac to Cajamarquilla, not far from the little town of Huaraz, had stems  $33\frac{1}{2}$  feet in height (nine metres), and its flowers, which were disposed in panicles, he reckoned at not less than 8,000 on each stalk. He found it at an altitude of 3,800 metres above the sea level. M. RAIMONDI's plant is still unknown to botanists."

Some person of wealth and ability, and so disposed, could undertake, somewhere at the South, the cultivation of this plant, giving it suitable temporary protection in winter by glass, with the prospect of having a sight when it comes into flower which would cause plant-lovers to make a pilgrimage to it from all directions.

It has already been introduced into France.

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DESTRUCTIVE FUNGUS.—A strange malady now affects the foliage bedding plants in France and other parts of Europe. It is a minute Fungus that shows itself only in the greenhouses and especially in the propagating beds, attacking and destroying the cuttings. According to *The Revue Horticole* the plants that have suffered most from this affection are the *Achyranthes*, *Alternanthera*, *Chrysanthemum*, *Coleus*, *Gnaphalium*, *Begonias*, etc. Some gardeners have even given up propagating the latter. No remedy is known for the affection, although every known means have been tried to arrest it.

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A LARGE COCKSCOMB.—A Cockscomb grown this season is noticed by *The Garden* as of remarkable size. "The plant is dwarf, not more than nine inches high, and very stout and vigorous; the broad-crested flowerhead, which measures fourteen inches along the top is surrounded by healthy green foliage, which shows the bright crimson of the plush-like comb off to advantage. The gardener who raised it had nearly a hundred plants as fine as this one."

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DARWIN MEMORIAL.—The committee having in charge the fund for the Darwin Memorial announced at a meeting held the last of June that subscriptions had been promised or received to the amount of nearly £2,500. The memorial is to take the form of a statue in marble and it is desired that it shall stand in the large hall of the British Museum at South Kensington.

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THE AMSDEN PEACH.—This valuable early variety of American origin is coming into great favor in France where in some localities it is fruiting in considerable quantities, bearing large crops. It is probable that it will be planted quite extensively in that country.





### INQUIRIES AND ADVICE.

This is the first year I have ever taken your *MAGAZINE*, but I begin to think that it is almost indispensable for any one who cultivates flowers in any way, as every number teaches amateurs, especially like myself, something new and necessary to be known. I wish to ask a few questions, hoping for an answer soon.

1. In the spring of 1881 I set out a *Clematis Jackmanii*, with the understanding that it was perfectly hardy. It grew about six feet, and had a few flowers, but last spring the new growth was all dead, and it had to start anew again. Now, am I to understand that the root only is hardy? If so, I am disappointed in it, for it is such a beauty that I want it to attain a much larger growth than it can do in one season.

2. What ails my *Fuchsias*? Last summer, at about this time, their leaves commenced falling until nearly every leaf was off. They were then on a south piazza, in partial shade. This summer I have left them in my bay window facing south, but do not allow the hot sun to shine on them. The soil is light, being chip dust mixed with a little manure. I sprinkle the foliage quite often, and yet, in spite of all my efforts, the leaves are again beginning to drop off. Now, what can I do? I do so admire *Fuchsias*, but one without leaves is an unsightly object, and I don't know but I shall banish them from my collection unless they behave better.

3. My *Achania* does nicely during the summer, but nearly as soon as I bring it into the house the leaves begin to turn yellow and drop off. On examining with a small microscope, which I have, I will find the axils of the leaves quite covered with very minute, transparent objects, resembling eggs, but can not find that they ever hatch, or change into any thing else. I have washed the plants in ammonia water, sulphur water, put sulphur into the dirt, and, in fact, tried every thing I could think of, but it all seems to do no good. Can you tell me what to do? If you will kindly answer these questions you will confer a great favor on a lover of flowers.

I would say to those who are troubled with the little flies about their plants in the winter, that since I have commenced using separate saucers with my pots, and taken to watering my plants from the bottom, by filling the saucers with boiling water, I am not troubled with the little flies, and I think the plants do much better watered in this way than by pouring the water on the top. — MRS. K. A. L., *Vestal, N. Y.*

The wood of the *Clematis Jackmanii* will bear the cold of our winters, but in the case mentioned it may not have been well ripened when the cold weather came.

Still, our practice is every season to prune away the wood of the previous year. The new growth is then very much more vigorous and the flowers larger. We do not advise this to be done in all cases, and one can prune more or less as may be found most desirable.

The *Fuchsia* likes a slight shade and a cool soil, and then, provided with moisture, it will stand as high a temperature as may prevail. In both of the cases mentioned the pots were exposed to a dry air that licked up from the sides of the pot all the moisture as fast as it could pass through the pores from the soil inside. Place the plants in the open, a little shady, such a place as the north side of a house furnishes, and there is no fear but they will do all one may expect from them. If they are to remain on the piazza, or the window sill, the pots should be sunk up to the rim in a box of soil which can be kept moist; then, if the drainage is kept open, they will hold their foliage and flourish.

The little white particles on the foliage of *Achania* are not detrimental. They consist of a waxy substance secreted by the leaves, and indicate health and vigor. No attempt should be made to remove them.

### THE CATALPA AT THE WEST.

A correspondent of the *Prairie Farmer* states that he planted quite a number of small trees of *Catalpa speciosa* three years ago along the first three hundred miles of the Union Pacific railway, and that now quite a number of them are from three to four inches in diameter and but one has died. He says they are as easily transplanted as any of the *Poplars*. Five hundred seedlings were planted three hundred miles west of the Missouri River, and have done well.



### A TRAILING PLANT.

I enclose a slip of a plant that I have. No one here can tell me the name of it. Please give the name in your next number of the MAGAZINE. It is full of bloom now, and the flower is like a very small Morning Glory, of a pale blue color. It is a trailing vine. MRS. E. K., *Platteville, Wis.*

The specimen sent is *Convolvulus Mauritanicus*, a very pretty and useful



CONVOLVULUS MAURITANICUS.

basket and vase plant. It is propagated by seeds and cuttings, and is of the easiest culture.

### ROSES.

I wish to know if I can keep my La France Rose through the winter with the same treatment I give my Jacqueminot Roses? Also, I have two Roses bought for Sydonie several years ago, which, though growing well, and wintering well, have never bloomed or even budded. Can anything be done to make them bloom? My other Roses have done well.

A sure and swift destructive to the white flies and Thrips on plants, is to shower them with tepid water, into which has been stirred some animal oil or even melted lard. It does not injure plants in the least. Please answer in September, and oblige an old subscriber—MRS. A. L. P., *Hanover, N. H.*

Unfortunately we do not know what treatment the said Jacqueminot Roses receive in winter; but in the climate of New Hampshire both kinds will need to be well protected, either with leaves, straw, earthing up, or in some way that is as effectual. In that case there will be no difficulty in wintering La France there.

The flowerless Roses inquired about we should lay down as carefully as possible, protecting them throughout the whole length of shoots; in spring give them little or no pruning, and try them another season. If they should bloom, and it should be decided to retain them,

their new growth can be pinched in while in foliage, but no pruning given while the plants are in a dormant state.

### DAHLIAS, LILIES AND CANNAS.

What distance apart is it proper to plant Dahlias, Lilies and Amaryllis?

In planting Iris in clumps of three or four, how deep and how far apart should be the bulbs, and how great the distance between the groups?

In massing Cannas, how far apart should the plants be set, and which are the best varieties for the purpose?

Are the bulbs of Cannas and Lilies too bulky to send by mail?—SUBSCRIBER, *Greenville, Miss.*

Dahlias appear to best advantage when they are set singly in conspicuous places, wherever they will make the most show. The same remark applies to Lilies and the Amaryllis, and any regular or formal manner of planting them should be avoided. If it is necessary, for any cause, to plant them near each other, we should keep them two feet apart, at least.

In massing Cannas, two feet is a good distance to observe. Among the best varieties of this plant may be mentioned *C. Warszewiczii*, *C. compacta elegantissima*, *S. Selowii*, *C. Nepalensis* and *C. robusta*.

Canna roots and Lily bulbs may be sent by mail, but the quantity and distance must be considered when it is to be decided whether to send by mail or express.

### PÆONY NOT BLOOMING.

A friend of mine, who with his wife, takes considerable interest in your MAGAZINE, has a choice Pæony that produces pink blossoms. It has not bloomed this year, and he wishes you to give, if possible, a reason therefor, or to know if any variety of Pæony blooms only once in two years.—J. E. M., *Chicago, Ill.*

It is often the case with perennial plants that they bloom so much one year that it requires an intervening year for them to recover vigor sufficient to allow them to produce another crop. Flowering, and especially seed-bearing, are severe tests of the vitality of many plants, and, when it is excessive, they are so weakened, that time is required for the recovery of their ordinary strength. This condition is especially noticeable with fruit trees that bear large crops on alternate years. But a diminished vitality is not always due to excessive blooming or seed bearing; it may result from excessive heat and drought, and from cold and wet weather, and from plants occupying a soil that is unsuited to them, either on



account of too much moisture with a heavy, undrained subsoil, or too dry a location, according to their peculiar needs, and also from other causes.

If the plant here mentioned has hitherto flourished, it will be best to allow it to remain, loosen the soil about it to admit of freer passage of the air through it, and spread some good rotten manure about it, and then leave it all winter. In spring it will, no doubt, exhibit its gratitude.

### BEGONIA—POTTING SOIL.

Will you please inform me through the *MAGAZINE* the proper mode of treatment for Begonia Rex; the variety I have is Louis Chretien. What country is it a native of, and what kind of soil does it require?

Across the street from where we live there is a fine grove, the soil under is a fine, black loam. Would that be good to pot plants in?—MRS. J. P. L., *Center Harbor, N. H.*

Begonia Rex is a native of the province or territory of Assam, in India. Its treatment, and that of its hybrid descendants, of which Louis Chretien is one, is what may be described, in a word, as that of a warm greenhouse. The soil may consist of leaf mold, good fibrous loam or well rotted sods, and old manure in equal parts, with an addition of a small quantity of sand.

The black loam, if mixed with some rotted sods, old manure and sand, would probably suit most plants.

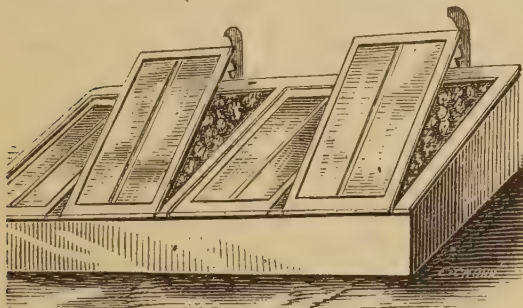
### COLD-FRAMES—PANSIES—ROSES.

Will you please answer the following questions through the columns of the *MAGAZINE*?

How is the proper way to make a cold-frame?

Will Pansies that are just coming from the seed now live over winter in a cold-frame, and be good plants in the spring?

What variety of Roses are best for a lawn? What kind will live through the winter in this climate outdoors, and will they blossom in the winter?—S. B. M., *Courtland, Ill.*



A cold frame is only a box frame covered with a sash. It should be placed in a protected situation on a piece of well drained, rich, light mold.

Young Pansy plants protected as proposed will be in prime condition in spring, and commence very early to bloom.

The hardiest Roses are what are called Summer Roses, and the Hybrid Perpetuals, and they are therefore most suitable for the lawn. Some of the China and Bourbon Roses, if well protected, may be wintered out in Northern Illinois, but there is always some danger attending it. For pot culture, the Monthly Roses, China, Noisettes, Bourbon and Teas, are most suitable, and of these there is a great variety to be found described in the catalogues, and from which one may select to please fancy.

### HOOF PARINGS.

Will you please tell me in the next number of your *MAGAZINE* how to prepare the trimmings of the horse hoof from the blacksmith shop for my plants. Please tell me the easiest way.—MRS. E. C. B., *Fair Haven, O.*

There is no better way to use the material inquired about than to compost it with stable or cow manure and sods and vegetable matter of any kind; keep all in a compact mass under cover for a year before using it. Do not allow it to heat much, but turn it occasionally to prevent it, and give water enough to keep it moist if it should appear to be too dry. When ready for use it should be soft and mellow and cut like old cheese. The hoof parings will not, however, wholly combine their substance with the rest in the period named, but will remain a constant source of fertility in the soil for several years.

### SUNFLOWER SEED.

A writer in the *National Farmer* says: "A half pint of seed given to a horse with his other feed, each morning and night, will keep him in better health and better spirited than he will be without it, while his hair will be brighter. When a saddle horse is required to be particularly sprightly, he may be given a pint of Sunflower seed with his oats at night, and half as much in the morning; he will be found more antic and sprightly, through the day, and consequently, be more pleasant to the rider. I have seen this course pursued with horses to make them antic, that were to go on parade, on occasions of town and county trainings, in early times; after a little use horses become very fond of eating Sunflower seed."



**BUTTON BUSH.**

Accompanying this you will receive a parcel containing a small branch of a wild flowering shrub, of which I would like to learn the name. The blossom is perfectly round, like a clover head, each division a perfect flower, with stamens and pistils; it is rather a dead white, but continues in bloom for a long time. If you should consider this worth attention, please name the shrub in the *MAGAZINE*.—S. E. S., *Berea, O.*

The shrub is the Button Bush, *Cephalanthus occidentalis*. It grows with a sin-



*CEPHALANTHUS OCCIDENTALIS.*

gle stem in tree form. The leaves are opposite and about three inches in length, of firm substance, clean and pretty. The flowers are in round heads, and are nearly an inch in diameter. This plant is quite hardy, and grows in most parts of the country. We regard it as a very handsome shrub, and one that might often be used to advantage as a lawn specimen.

**THE DUCHESS PEAR.**

Every one who wishes to have pears, should get this valuable variety. After an experience of twenty-five years in growing pears, I have seldom known a tree of this variety die from blight, while nearly all of the others suffer very seriously. The Gloutmorceau, Bartlett, Beurre Diel, Louise Bonne de Jersey and others have proven a failure here in West Tennessee. This old and excellent fruit has alone stood the test and brought annual returns of the finest fruit. I find it lives as well on quince as standard stock; but as it bears easily on pear stock I would advise persons to try the standard, as the tree grows larger and bears more fruit.—A. H. B., *Brownsville, Tenn.*

**THE CAPE POND-WEED.**

WILLIAM FALCONER of the Botanic Gardens at Cambridge, states that *Aponogeton distachyon*, the Cape Pond-Weed, as it is called, is hardy there, having lived in a shallow pond three or four feet deep since the fall of 1878. The clump of plants is growing stronger every year, and this season twenty-three blossoms were borne among the numerous leaves.



The flowers are pure white and as fragrant as the *Heliotrope*.

In the house one can grow it if desired, and bloom it in the winter. Take a dish three or four inches deep, and half fill it with turfy loam in which plant the root; now place over the soil a covering of gravel or coarse sand, to hold the soil in place and prevent it from soiling the water, and then fill the dish with water, and keep the dish where the water will not freeze.

**THE PEWAUKEE APPLE.**

*The Home Farm*, of Augusta, Maine, tells of eating the Pewaukee Apple on July 20th, thus showing it to be a longer keeper than is usually claimed for it; but at that time it was "tasteless and devoid of flavor." So it outlasts its usefulness. A correspondent of the same journal says: "I have proved the Pewaukee apple. It is not more than half iron clad, far inferior to the Wagener or Baldwin. A great bearer in odd years when grafted in the Crab apple tree limbs; far inferior to the Fameuse and no hardier, and no better keeper. It is the size and shape of the R. I. Greening and has a gray bloom like the Blue Pearmain. I have grafted mine to King of Tompkins County, this spring."

**A NEW WHITE GRAPE.**—A new hardy white grape called the Empire State will probably be brought out this season. It is one of MR. J. H. RICKETT's seedlings, with a mixture of Hartford Prolific and Clinton in its composition.



### WINTER BLOOMING PLANTS.

In reply to F. H. S. in the July issue, allow me to give my experience in regard to winter blooming plants. I have only ordinary windows and common rooms, which are so small that I keep the doors open all the time between them, thus admitting to them the most light, air and moisture. I plunge all plants in a pail of tepid water once a week if possible, and never allow more than two weeks to pass without this bath, as, even with plenty of steam in the rooms, they will lack for moisture and the blossom buds will blast; besides, the under surface of the leaf requires the moisture more than the upper, so that a common sprinkling does not answer the purpose. The plants should not be crowded in the windows, nor more than one shelf in the middle of the window, and one at the edge of the sill. I place oil cloth on the shelves, thus protecting the sill of the window and the top of the sash. It is best to have but one row of pots, so that the sun may strike the pot on one side, and the heat of the room on the other. Let us now think of the plants. A nice *Begonia rubra*, will blossom all the year round if given good rich earth. I put rotted chip soil in the bottom of the pot and fill up with a compartment of well rotted manure two parts, and sand one part; cow manure is better than any other. The sand should be clean, clear crystals, and not a yellow clayey sand. This compost answers also for most all other plants. I have had plants of *Begonia rubra* begin to bloom as soon as the slips were rooted, but pinch out the blossom buds thus preventing their blooming until they are nicely rooted and the plant strong. The plants should never be allowed to become dry but the earth kept so that it will be like damp-leaf mold, in the shaded woods. Geraniums I get from the green house in February or March, if I do not have the plants of my own. In June, having them in four inch pots, if they are five or six inches high, I plunge them outside; but, if less, I keep them growing until they are large enough to put into four inch pots, putting charcoal in small pieces in the bottom of the pot, and then the rich earth; let them be well watered when put into the ground. The best place to plunge them is on the north side of a tight, high board fence in good, rich soil. After this time I keep all

blossom buds pinched off them until within a month of the time that bloom is wanted. A month must be allowed from the time a bloom is wanted for the trusses to develop. After the plants have commenced to bloom, plenty of blossoms can be had all the season by the use of proper fertilizers. I do not water Geraniums as much as Begonias and they are placed on the lower shelf. Begonias, Lantanas, Heliotrope and Coleus are given the upper shelf, or brackets. The following is my selection of winter blooming Geraniums: *Amelia Baltet*, *M. Pasteur*, *Ernest Lauth*, *Mrs. James Vick*, *Guillian*, *Mangilli*, *J. T. Kirtland*, *Depute Ancelon*, *Sylphide*, *Depute Berlet*, *Mad. Gunthert*, *Depute Varay*, *M. Deriard*, *Simon Delaux*, *Delobel*, *J. H. Klippart*, *L'Avenir*, *Asa Gray*. For foliage varieties I select *Happy Thought*, *Black Hawk* or *S. P. Wakelee*, *Crystal Palace Gem* or *Battersea Park Gem*. These give a bright window. *Speciosa* and *Spotted Gem Coleus* are hardy enough to do well on the upper shelf, with Geraniums on the lower shelf. The plants should not be allowed to run up so that they become leggy; by pinching them back occasionally they are kept compact.—ONE WHO LOVES FLOWERS.

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### POISONING WITH POISON IVY.

Dr. BENJAMIN EDSON of Brooklyn, has had much experience with cases of poisoning by Poison Ivy, *Rhus Toxicodendron*. He is familiar with alkali and other washes usually employed in their treatment and considers them of little, if any, value. He has treated some severe cases, he states in the *Medical Record*, with fluid extract of Gelsemium with uniformly the best results. As most of our readers are aware, Gelsemium is the Yellow Jessamine of the South.

The extract was employed in a wash made by mixing together a half drachm of Carbolic acid, two drachms of the fluid extract of Gelsemium, one half-ounce of Glycerine and four ounces of water. With this cloths were kept moistened and applied to the parts affected. Two drops of the fluid extract of Gelsemium was also given internally every three hours. Some cases were also treated with the same mixture with the carbolic acid omitted, and these yielded no less promptly than the others.





### THEN AND NOW.

We moved to good old York state some forty years ago,  
 And on a little clearing we tried to "hoe our row,"  
 Our house was but a cabin of logs with mud chinked in,  
 With chimney on the outside, big as a granary bin ;  
 We tried to make it home-like—wife, I remember well,  
 Trained Morning Glories round the door ; and oft I've heard her tell  
 How "Morning Glories" saved her life—they took her back again  
 To the old days when she tended flowers at home, way down in Maine.  
 So, whenever she grew home-sick-like, she'd spend an hour or so  
 Just trainin' with those runnin' vines and watchin' of 'em grow,  
 And it always sort 'o made it seem,—I've often heard her say,  
 With flowers a bloomin' that house seemed not quite so far away.

Well, years passed on, and soon we had a frame house of our own ;  
 And a man could not be prouder of a grand five-story stone  
 Than we were of our bran new house—we fixed it up right well  
 With a painted paling round it ; and, after quite a spell,  
 We had a gravelled pathway a leadin' to the gate,  
 And on each side, a flower-bed, all nice and trim and straight,  
 And in the beds wife planted some Touch-me-not's and Phlox,



"Sweet Williams," Tansy," "Poppies" and some gorgeous "Hollyhocks."  
We thought we were fixed splendid; but time and change creep on,  
And that wee house we thought so grand and those flower-beds are gone.

And in its stead a "cottage" stands "just slinging on the style,"  
And this new house will do us now, I guess, a good long while.  
There's dormer windows in the roof—bay-window in the wing,  
And cosy porches here and there, and all that sort of thing;  
The walks go winding in and out among the shady trees,  
And every turn will bring you where there's something new to please,  
An arbor or a summer house, a trellis or a vine;  
And, best of all, I tell you, friend, its all wife's work and mine.  
Yes, wife still has her posies, oh! you should have seen me stare  
The first time that she asked me out to see her new "partarre;"  
That's what she calls her flower-bed now; but I can't pretend to say  
What posies now she plants in them—could'nt name 'em in a day.  
The cost has not been great, most was love and right good will;  
A few cents here and there—with taste—has helped to fill the bill.  
But this I know the Rose, that twines and blooms around the door,  
Helps make our home the cosy place we all love more and more,  
And as it clambers in and out it seems, this sunny weather,  
To bind more closely to our home our loving hearts together.  
There's not a corner round the place but has its mem'ry; why!  
There's more about this place, my friend, than all your gold could buy.  
The very birds it seems to me sing here with happiest tone;  
There's not a place in all the world so dear as "Home, Sweet Home."

MRS. JULIA M. KLINK, *Princeville, Illinois.*

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## LEGEND OF THE ROSE.

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—Ah, lady! list my tale;  
I was the summer's fairest pride,  
The nightingale's betrothed bride;  
In Shiraz's bowers I sprang to birth  
When love first lighted on the earth;  
And then my pure inodorous blossom,  
Blooming on its thorny tree,  
Was snowy as it's mother's bosom,  
Rising from the emerald sea.  
Young love, rambling through the wood,  
Found me in my solitude,  
Bright with dew and freshly blown,  
And trembling to the zephyr's sighs.  
But as he stood to gaze upon  
The living gem with raptured eyes,

It chanced a bee was busy there,  
Searching for its fragrant fare;  
And Cupid, stooping, too, to sip,  
The angry insect stung his lip—  
And gushing from the ambrosial cell,  
One bright drop on my bosom fell!  
Weeping, to his mother he  
Told the tale of treachery;  
And she her vengeful boy to please,  
Strung his bow with captive bees;  
But placed upon my slender stem  
The poisoned sting she plucked from  
                  them,  
And none, since that eventful morn,  
Has found the flower without a thorn.

### FLORAL DECORATION.

A recent number of *The Gardeners Chronicle*, in a notice of a flower show lately held, mentions "a basket florally dressed that was perhaps more truly novel and charming than anything else in the show." In his description of the basket the writer says: "It was of the ordinary fancy shape, with a handle perhaps too high, because badly proportioned. The base of the decoration was composed of dark glowing red roses, closely placed, and from out this sprang thinly small fronds of Maidenhair Fern, and flower of Sweet Sultan, and the creamy-yellow Marguerite, both pleasingly harmonizing. The chief defect of the arrangement was found in the dressing of the handle with Roses and Fern fronds. That was an obvious mistake, because baskets are made to be carried, and to dress the handle in this unnatural fashion is to decorate at the expense of utility. If it is not intended to utilize the handle of a basket, the best thing to do in such a case is to remove it altogether."

We wish to call attention to this criticism. Those of our readers who intend to make exhibitions of floral decorations, during the season of flower shows, upon which we are now just entering, may do well to consider it. It is not merely on account of the dressing of a basket handle that subject is noticed, but because the principle underlying the criticism is of general application.

The principle broadly stated upon which this criticism rests is that, *an article of use cannot be properly decorated at the expense of utility*. And this principle commends itself to the judgment and will stand investigation. We may apply it to the clothes we wear, to furniture, to architecture and to any of the implements of use and it will hold true; persons of good sense are governed by it, and apply it continually, though they may have never nicely formulated it, or thought of its wide reach.

When applied to floral decorations it will save us from floral elephants, and floral dogs, floral lambs and floral cocks, floral war-vessels, floral chairs, and scores of other figures which have become familiar subjects at flower shows.

An objection may be brought to the criticism on the ground that the basket was not designed for use, but, being of

"fancy shape," was intended only for the purpose of displaying flowers, consequently, in ornamenting the handle, it was not by any possibility diverted from its original purpose.

This objection is worthy of attention and appears plausible. We must, however, consider the object of the handle, and from the idea of its use in lifting and carrying the basket we can never disassociate it. Again, as a resting place for Roses, how inappropriate it is! Lifted up in the air instead of resting on a bed of moss, our fear is that the flowers will immediately wither; and, though the handle could be stuffed with moss underneath and really be a fairly suitable place to preserve cut flowers, it does not appear to be so; hence the incongruity. If the handle had been decorated on each side by a fern frond or piece of one, its base resting in the basket and the tip reaching toward but not quite to the top of the handle, there could not have been no offense to good taste. A piece of Climbing Fern would have been excellent in the place. Much more might be here written in illustration of the principle in question and various examples given to show its wide application, but those interested in art, as indeed we all are, may probably ponder upon it and make applications as they suggest themselves.

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### STRAWBERRIES.

The opinions of some practical fruit-growers and horticulturists of high standing, as formed after another season's experience with Strawberries, and given in *Cultivator and Country Gentleman*, indicate the value of varieties to be about as follows; Sharpless, Cumberland Triumph and Manchester stand very high, and apparently give great satisfaction everywhere. The Bidwell appears to vary greatly with locality, and probably it is not advisable to plant it largely anywhere without first testing it fairly. This opinion agrees with the statement of a correspondent in our last issue, and it is becoming evident that the Bidwell on some soils sets so much fruit that the plants cannot perfect it, and as a result nearly all the berries are shrunken and imperfect. Where this variety succeeds it is highly prized and considered very profitable, but apparently it is not adapted to general cultivation.



The editor of *GREEN'S Fruit Grower* considers a new variety that has not yet been disseminated, and that is called James Vick, to be the best market sort. Another season's trial will be given it before offering it to the public, although its merits as a prolific and profitable market variety are now pretty well established.

Wilson's Albany in most parts of the country still maintains the position it has so long held as the foremost market variety, but in some places it is said to be more easily affected by strawberry rust or leaf blight than most other kinds.

The Crescent Seedling holds a high rank as a profitable variety, and Duchess, Longfellow, Downing and Miner's Prolific are general favorites.

One fruit-grower mentions New Dominion, a variety of Canadian origin, as the "best market sort."

Of the dozen or score of varieties of strawberries that are now prominent, the comparative merits will be so well known by another year's fruitage, that the greater portion of them may be discarded in favor of a half dozen or smaller number that best combine the highest qualities; and to these it appears as if Wilson's Albany must eventually give entire place, as it already has with many fruitgrowers, supplying the market with handsome, large berries of excellent flavor.

#### FERTILIZING CUCUMBERS.

At present there is apparently a little difference of opinion existing among English gardeners and garden authorities in regard to the necessity of fertilizing the blossoms of cucumbers. The Cucumber produces its stamens and pistils in separate flowers, and when cultivated under glass fertilization is effected only artificially; the gardener with a small camel-hair brush placing a little pollen on the stigma of each pistillate flower. It is a matter of some importance then to those who raise Cucumbers under glass to know whether all this labor is necessary or not. It seems strange at the present stage of the art that there should be any question in regard to a practice that has obtained so general an observance. The *Gardeners Chronicle*, a most reliable authority in detailing an account of a particular mode of raising this vegetable with a high heat and plenty of moisture

that came under its notice, called the "express system," remarks that: "Under the express system seed bearing is indeed rendered impossible, by the removal of every male blossom as soon as formed."

Is it true that such is the practice?

The idea is that fertilization is only necessary when seeds are to be produced, but not for the production of a table Cucumber which is better without seeds.

A correspondent of *Gardening Illustrated* says in reference to this subject: "Some gardeners condemn the practice of fertilizing the female blossoms of Cucumbers. My experience is in favor of it. Some two months ago our Cucumbers (*Telegraph*) suddenly ceased to bear, the young fruit turned yellow at the point, and ultimately shrivelled up. I noticed at the time there were but few male blossoms on the plants. By the way of experiment I fertilized some of the female flowers, and great was my delight to see the young Cucumbers swell up and and assume handsome proportions. Since then I have regularly fertilized them, and I have had a constant succession of fine fruit. I have, in fact, not seen a single malformed one since I adopted the practice."

Thompson's *Gardeners Assistant*, an English work, regarded of the highest authority says: "Formerly great pains was taken to fertilize the female flowers, but it has been proved that this is not necessary except where fruit is to be grown for seed."

What now is the truth in regard to this statement?

The common practice in this country with Cucumbers under glass, where fertilization cannot be effected by the agency of insects, is to carefully fertilize by hand each pistillate flower from which a fruit is desired. Can this work be dispensed with? We await the testimony of those who may supply positive information, and it ought not to be difficult to supply it.

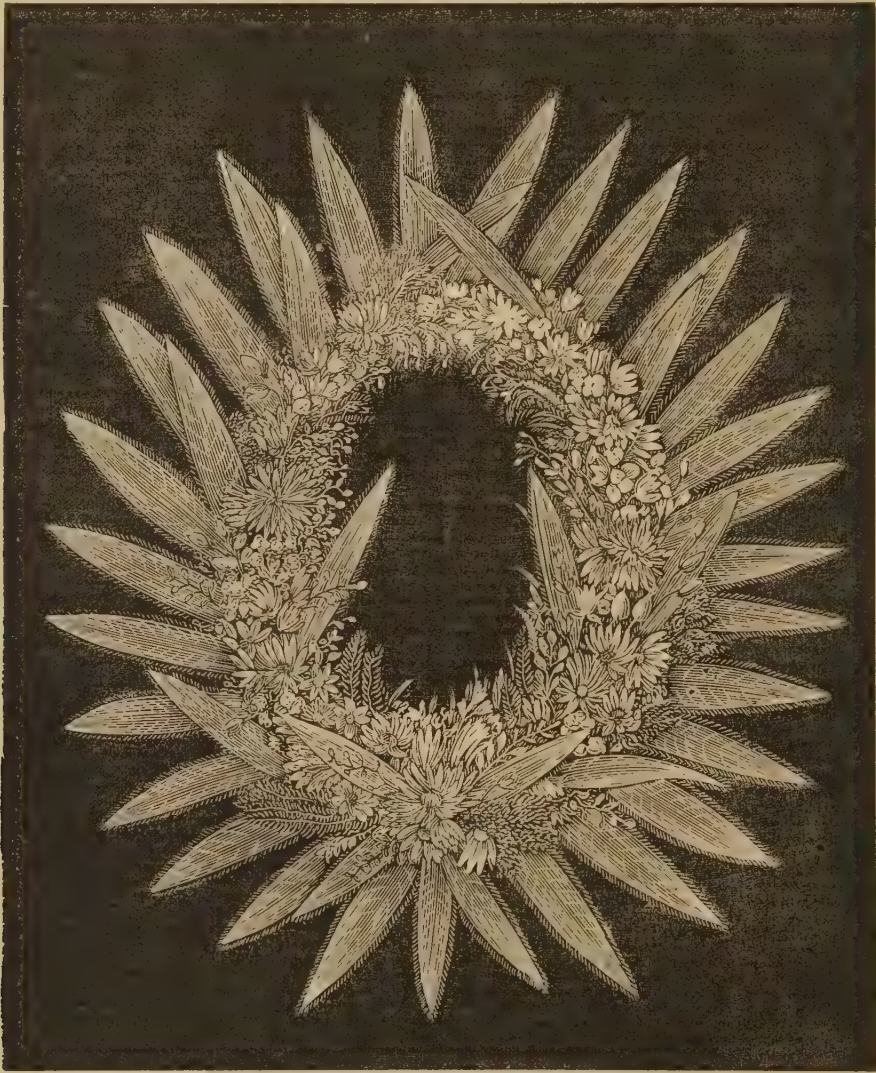
STATICE LATIFOLIA.—I have for several years bought the seed of this hardy English plant but never got one to come up. Can any of your numerous correspondents give me any advice or their experience in regard to it? Another plant I can never raise is Spring Pheasant-eye.—C. R. B.

**BEAUTIFUL LEAVES.**

Some beautiful leaves have been sent to us from Capetown, South Africa. They are very peculiar in their appearance, and the annexed engravings will greatly assist in forming a correct idea of them. The color is a soft lustrous silver gray, and through it the delicate veining is quite conspicuous; the surfaces feel like satin, on

called the Silver Tree, and botanically is known as *Leucadendron argenteum*, formerly *Protea argentea*. It is a small tree with a straight stem, growing about fifteen feet high. It has been cultivated under glass in a few places in Europe, and is regarded with great admiration.

The botanical family to which this plant belongs includes some six hundred



WREATH WITH LEUCADENDRON LEAVES.

account of being clothed with very fine, silky hairs. These leaves are quite different from any others we have ever seen, and produce a very singular impression, as if Nature had started a new style in foliage. A lady in Canada having a brother in South Africa sent us a specimen of these leaves a few years since, but did not know what plant they were from. Since then we have learned that they are borne on a tree that grows on the banks of the rivers and other streams. It is

species, most of which are remarkable for the beauty or singularity of their flowers and their evergreen or persistent foliage. They furnish a large part of the fuel at the Cape and also in Australia; one of them, a *Protea*, is employed in making wagon wheels in South Africa, and is called by the settlers there *Wagenboom*.

The leaves of the Silver Tree having been sent to England, have been employed by the florists there in making up pieces with flowers. They can be worked into



wreaths with Ferns, Immortelles, Everlastings and especially with the beautiful Cape Flower, *Helichrysum vestitum*. A wreath made with them is here shown.



LEAF OF *LEUCADENDRON ARGENTEUM*.

They can be used in various ways with fine effect. It is probable that in a few months a supply of these leaves will be sent here from the Cape of Good Hope.

#### PUBLICATIONS RECEIVED.

Our Native Ferns and their Allies, with synoptical descriptions of American Pteridophyta North of Mexico. A second and enlarged edition of our Native Ferns, and how to study them, by LUCIEN UNDERWOOD, Ph.D., Bloomington, Ill. Price, \$1.00. For sale by the Author.

That a second edition should be demanded in little more than a year after this work made its first appearance, indi-

cates that there are not a few in this country interested in the scientific study of Ferns. This is the only work containing descriptions of all the Ferns growing in our country, excepting the costly one, Eaton's Ferns of North America, and that few only can have access to, consequently the book supplies a place not previously occupied. From personal use since its first issue we are able to speak confidently in regard to its accuracy and value, both of which it possesses in a high degree. We would cordially commend it to the attention of students in this department of plant study. Besides the Ferns, which only were treated of in the first edition, this volume also comprises the Horse Tails, the Club Mosses, the Quillworts and the Pepperworts. The arrangement and descriptions of these plants are as complete and satisfactory as those of the Ferns.

#### *YUCCA FILAMENTOSA*.

This plant in our grounds sent up flower stems, this season, nearly eight feet high, bearing hundreds of blossoms. An average height was about six feet. The flowers on different plants vary much in size, shape and color.



Some specimens remain of a greenish color that is common to them all when first expanding, but which the better varieties soon lose, becoming a clear white. The season of flowering was from the middle of July well into August. This plant, so tropical in appearance, so profuse of bloom, and withal so hardy, is very valuable in the garden and for the lawn, but because of its striking appearance it should be used sparingly.

## REVIEW NOTES.

A correspondent mentions that *Linnæa borealis* was the favorite flower of the father of modern Botany, LINNÆUS, but does not give the reason, which is thus stated in A. PRATT'S Flowering Plants of Great Britain:—"Linnæa was formerly called Nummularia, because its leaves are orbicular, like little pieces of money. GRONOVIVS gave its present name to the plant at the request of LINNÆUS, who considered that its lowly, depressed condition, and the fact of its having been long unnoticed, rendered it a meet emblem of his own early life. In all subsequent time the flower has had and will ever possess an interest to the botanist, for CARL LINNE was a great reformer of Natural History and the father of the modern physical sciences. He considered it possessed medicinal properties. The Swedish government granted the plant to LINNÆUS as a crest for his coat of arms; and letters are yet extant sealed with the seal which the botanist had caused to be engraved with this flower."

The writer of notes from Australia mentions a Harvest Festival, and decorating the church with flowers. It has been the custom, time out of mind, to bring flowers into the house of GOD. The custom is, I suspect, older than Christianity, at all events as far as Ivy, Holly, Yew and Laurel are concerned; and from the time of Edward VI downward quaint entries are found in old Parish account books for flowers for the church on the great festivals; the flowers are mostly the old fashioned sweet ones mentioned in the extract from BACON in the June number. Sir WALTER SCOTT mentions the custom in Scotland in the good old times.

"When Cottagers my shroud bestrew  
With Pansies, Rosemary and Yew,  
Then, lady, twine a wreath for me,  
And twine it of the Cypress Tree."

Though it has been the custom to use flowers for the decoration of our churches from time immemorial, the Harvest Thanksgiving service is, as far as I know, comparatively modern. It was one of the fruits of the revival of church life, which is commonly called the tractarian, or Oxford movement, and which began about forty years back.

The custom finds its warrant in the Jewish Harvest Festivals, which our Lord

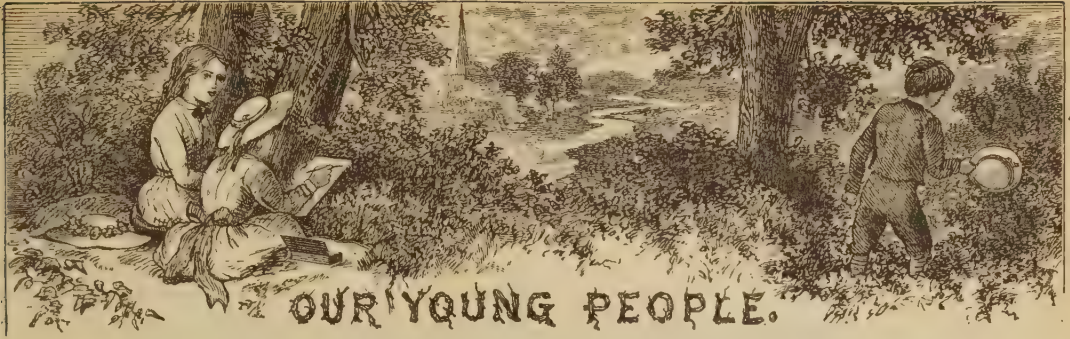
honored with his presence, and though at first it caused alarm in the minds of those who think every thing new to them must be wrong, it has now long passed out of the ranks of those things about which there can possibly be any question.

Your American readers will hardly credit it when I say that a few years ago a funeral, such as that of the late lamented Mr. VICK, would have caused a riot. I have never been at a funeral where flowers were used, and the poor people in the village of Dorsetshire, where I was brought up, were actually forbidden by the rector from planting flowers around the graves of their departed friends. Still, he allowed the church to be most beautifully and elaborately decorated at Christmas.

It is the almost universal custom, both in town and country, to send the fruit which has been offered at church to the sick poor, either in the parish or in the hospitals. In London, where the gas and heat soon fades cut flowers, even when in water, it is becoming very customary to use plants in pots. These should not be lent for the occasion, as I find is sometimes the custom on this Continent, but given, and after the festival is over sent to those in the Parish who can not afford to buy plants for themselves, especially the bed-ridden who were not able to join with their brethren.

When I was helping as a layman in a large, free and open church in London, attended and chiefly supported by the poor, we doubted whether we were justified in spending so much money as we did, often \$50.00 for fruit and plants to decorate the church. So, in order to see whether the congregation cared about the flowers, about ten days before Easter a small box was put up by the side of one "for the sick poor," and one "for foreign missions," with the inscription "for flowers for the decorations." When it was opened at the end of nine days there was found to be \$10.00 in the box, all in one and two cent pieces, and this in a church where there were collections at every Sunday and many week day services. Our parson smiled and said, there are some souls who it seems you can only move with flowers, and who never come to church except when it is decorated with flowers.—C. R. B., *St. Thomas Parsonage, Chilliwack, B. C.*





### STORY FOR THE WEE FOLKS.

Once on a time a very small girl wanted a Morning Glory vine for her very own. Her name was Nettie Grey. On her bread-and-milk-bowl there was a vine of that kind running all around the outside, and often she had held it up so high to take another look at her "glories" before she had finished eating that the milk would run over on the opposite side and splash the "glories" on her plate. Now the Spring had come, and she wanted nothing in the world so much as a live vine of her own that she could see grow. She had trotted around in the yard after her sisters, watching them set out plants, and training vines on cords and trellis until she was sure she knew how it was done. But she was a sly little midget and wanted her vine to be a secret until it should be tall enough to speak for itself. But she did not know how to manage it. Her vine must grow very high and so it must have something high to climb on. Finally she discovered a place that just suited her. It was so much nicer than anything she had thought of that she sat right down and laughed and exulted to think her sisters had not thought of that place first. Yes, she could just see her future vine going up, up like Jack's Bean Stalk, until "everybody would be so s'prised." Then she fairly tumbled over and rolled until it occurred to her that she had better go to business.

So, up she jumped and getting her sisters' earth-prong she dug the earth up loosely as well as she could, and then patted it down with her little fat hands and made a hole in the center with the handle of the prong—as she had seen her sisters do—and then filled it with water. Then she went to where the last year's Morning Glories had grown and carefully dug up a plant. While she was at work

some one called out "Nettie, darling, what are you doing there in the dirt?" which, of course, frightened her very much. But she said nothing, and hurried away to set out her treasure. She dropped the root into the hole and pressed the earth against it all around and then watered it again, and O how lovely it looked!

Then she wanted to fence it around with sticks—but somebody would be sure to see them! Then she thought of pussy; what if she should go there to sun herself! and Carlo—what if he should roll over and over in that very spot! or what if some old hen should come there to scratch for a worm—a wicked hen like the one her sisters had read about in Jenny Dare's garden!" "O dear," she sighed, and looked very forlorn indeed. Suddenly her face lighted up with an angelic smile, and she stooped to pick up the wash-basin just as she heard Patrick call out "The basin's gone from the pump ma'am." O, such frights as she did get, trying to keep her secret! But she hurried to give it to him before anybody saw; and had hardly got her hands washed, until her mother called out:

Nettie, dear, what have you been doing all the afternoon? Come now to your supper. While she was eating her bread and milk her mother said: "Why, Nettie my dear! how very dirty your finger nails are!"

Such a time as she had to keep her secret! But she only answered:

"Yes, ma'am; I've just been workin' a little;" and then took up her bowl and drank the milk so that she could hide her blushing face in it—not in the milk, but in the bowl. Her mother looked at her curiously and wondered what she could have been doing.

Pretty soon bed-time came, and Mrs. Grey, taking little Tot to her room, pre-

pared her for bed, and then the little one kneeled at her mother's lap to say her prayer; and as Mrs. Grey noted the picture she made, she thought to herself—though perhaps she did not think it in rhyme—

Two little, clasping hands,  
Two little, naked feet,  
Two little, azure orbs  
Uplifted mine to meet.

Two little lids that close,  
Veiling their azure light,  
Two lisping lips that ask  
To keep her through the night.

When Nettie had finished her usual prayer she remained on her knees earnestly saying something in a whisper. When she rose up Mrs. Grey drew her face to her own and softly asked:

"May not mother know what that last little prayer was about?" Then Nettie buried her face against her mother's bosom and whispered that it was a secret; but that if she would never tell the others about it, she might know. Then she went on to explain—though it's not at all certain that she spoke in rhyme either; but the words she had to use, just go into rhyme of themselves anyway. So here is the secret:



"Dear mother I've planted a vine  
Right close to the lightning rod;  
And I want it to grow and to climb  
Till it almost reaches to God.

And I've asked Him to watch it at night  
And keep all the bad things away;  
And if He'll do that—when it's light  
I can watch it myself every day."

After a short silence Mrs. Grey kissed her little girl and put her into bed and told her to hurry off to dreamland and

nobody should know her secret until it came out itself.

For awhile the vine seemed to thrive as though, sure enough, somebody wiser than Nettie had a share in its culture. She never forgot to water it morning and evening—rain or shine.

One day after a fearful thunder storm Nettie hurried out in the wet to see if her vine were blown down. But worse than that, it was black and shrivelled as though it had been burned. In tears she went to her mother who petted and comforted her as best she could. But she sobbed so piteously, that her mother thought she would tell her that perhaps her Heavenly Father had let the vine be killed to show her how near she had been to danger and escaped. This idea proved to be very comforting: for directly she said: "I thought he let it be killed because I told Him I could take care of it in day-time myself."—AUNT MARJORIE.

NOTE—"Aunt Marjorie" would like to say to "Our Young People" that she has somehow learned that the articles in January and February numbers signed Grandfather Gray were written by Mr. Vick. (She suspects one in the March number signed "Uncle John" was by him also.) Mr. Vick considered all "Our Young People" as somebody's grandchildren—if not almost his own, and wished to write something of real worth, especially for them; and, now, they will all take pleasure in turning back and carefully reading *those last words written for our department* by his kindly pen.

#### LONG MOSS.

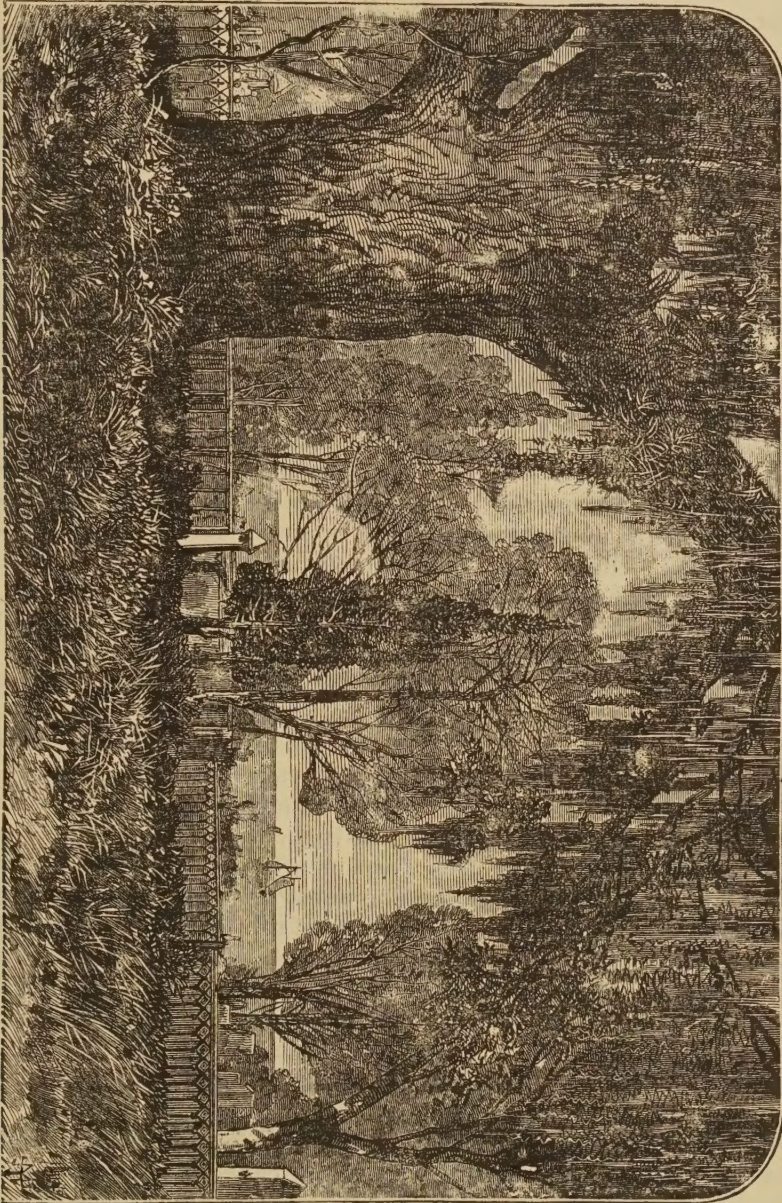
Many of our readers at the South will recognize at sight the particular feature sought to be portrayed in the present illustration—the Long Moss, a form of vegetation peculiar to the Southern States. This substance is sometimes called Spanish Moss, Black Moss and Tree Moss. Most of us at the North have seen only small bits of the Moss, as it is sometimes brought here to be employed for the decoration of our rooms. And now we must state, as some may not be aware of the fact, that although called moss it is not so really, but is a plant that produces flowers. It is botanically related to the Pine Apple and to several other plants growing in the South belonging to



the family Bromeliaceæ. In the great forests in some parts of the Dominion of Canada, and in Washington Territory, and Oregon, are found what are called black and yellow mosses hanging from the old trees; but here again a name is supplied that is not a true one, for in these cases they are Lichens and not mosses

the *Usnea*—that is, when seen hanging from the trees it reminds one of the Lichen, *Usnea*, on the trees at the North. This plant is an air-plant, or epiphyte growing on trees, attaching itself to the bark of the stems and branches by fibrous rootlets which serve this purpose only, as they do not draw nourishment

SCENE IN A SOUTHERN GARDEN.



that invest the trunks and branches of the trees. One kind of Lichen growing on trees and hanging in tufts is called *Usnea*. The name of the Southern Long Moss is *Tillandsia usneoides*. It was named after Professor TILLANDS, a Swedish botanist, and thus perpetuates his memory.

The last word of the name means like

from the trees. Air-plants are said to be sustained by the moisture and gasses of the atmosphere, though how this can well be it is somewhat difficult to comprehend. This moss at first sight looks like a mass of gray strings. Each stem is long and branching, of a grayish white appearance; small greenish flowers are borne singly at



the ends of the branches. Examined with a magnifying glass it is seen that the scurfy appearance the stems present is due to whitish, translucent scales, that thickly clothe the whole stem. The inner substance, when divested of the outside coating, is a tough dark brown or blackish thread, not unlike a horse-hair. By steaming and then pounding, the outer coating can be wholly removed, leaving the blackish hairs, which are tenacious and elastic; these are used in the manufacture of mattresses, cushions and other upholstery. There are a number of other species of *Tillandsia* growing at the South, some of them bearing handsome spikes of flowers. A lady in Florida sent us last Spring four distinct species of them, one species having a spike of flowers; none of them grown like the moss, but as upright plants. Some species bearing very beautiful flowers are natives of Brazil and other South American countries, and have been introduced into cultivation and are rare and costly.

In forests at the South, where the Moss grows in great profusion on the trees, it has a sombre, gloomy effect, not at all pleasing; but in more open situations, like that in the illustration, where the growth is less dense, it clothes the branches with a graceful drapery.

#### A WALK DOWN THE LANE.

A little girl sat gazing out of the window, one beautiful afternoon in Spring, and wondering at the beautiful new dress nature had put on. 'Tis true her home was in the crowded city which she could not remember ever having left, and she could not see the green fields or woods in their beauty, yet she sat in quiet enjoyment.

Her mother, patient and sad, was near her sewing, but now and then casting a glance at her child. She sighed to think how few were little Lucy's pleasures, yet the child always seemed happy. The sky, the moon, the stars, and all of nature that she could see, seemed to give her great delight.

"Mother," at last said little Lucy, "how does the country look? I wish I could see it—and the pretty wild flowers?"

"Why, Lucy, don't you think other flowers sweet and pretty?"

Oh! yes, mother, but I would like to

see some growing wild. And I would like to see the country once.

The mother sighed but laid down her work and told Lucy to get her hat and she would take her to walk—to a pretty lane the child had never seen. Perhaps there she might see some wild flowers.

Quickly the little maiden brought the hat and her mother's bonnet, and the two set out on their walk.

Past all the stores and crowded part of the city they went—past the more quiet part where the houses were further apart, and at last they entered a lane where the Hawthorn trees sent out a sweet swell, and the bees buzzed around them with a pleasant sound.

"Oh! how beautiful!" cried Lucy. "And how sweet the air smells,—and O mother! just hear that little bird!"

The mother smiled at her child's enjoyment, but proposed to walk on down the lane. A few yards further was a wild rose vine clambering over a low fence, and having many of the fragrant pink blossoms open and many were buds that had not opened. Around the vine flitted gay-winged butterflies.

"Now, my darling, you see the wild flowers," said Lucy's mother, "and you can tell how you like them."

"Oh! how sweet!" exclaimed Lucy. "May I pull some?"

"As many as you like, dear,"—And her mother sat down on the grass to rest while Lucy gathered the flowers. At last she had enough, she said, and as the sun was nearly setting they turned their steps homeward. They stopped again to pull a few of the Hawthorn blooms to put with the Roses, when the child cried out, "O mother, see what a beautiful string of beads some one has dropped on the grass—but see, it is moving."

"Don't touch it, Lucy, it is a little snake. But it is pretty." And sure enough, it swiftly glided away—a little serpent, called by some the garter snake, and so much like a string of beads of different colors that it might easily deceive a child.

"Come Lucy," said her mother, "we must be going. I will bring you here again some time if you wish it."

"Do, mother, please," said the little girl. "I never have had so nice a walk before, or have seen so many pretty things in one afternoon.—SIDNEY EMMETT.







HEMISTROPHES FORT-MERNOI  
ALICE-MRS. BERTAUDIS